

Thursday, June 10, 2010 2:44:57 PM

Page 1

**Accept**

**Setup Start**

**Stop**

**Start Date:** 6/10/2010      **Start Qty:** 2.00

**Cust Item ID:**

**Required Date:** 6/18/2010      **Req'd Qty:** 2.00

**Customer:**

**Reference:**

**Approvals:**

### Process Plan:

Date: / /

**Tooling:**

Date:

Run Start

**QC:**

**Date:**

**SPC (Y/N):**

Date:

**Stop**

**Insp.  
Stamp**

Revision Nbr

D3074

A2 U/R

→ PROCEED. ENSURE WALL THICKNESS IS 0.049"

0.00

100

[illegible]

## Small Fab

### Small Fab

## Small Fab

## Memo

0.00

- 1- punch one side
- 2- slide parts in tube
- 3- punch other side
- 4- bend as per dwg D3074
- 5- drill holes as per dwg D3074
- 6- deburr and polish

ml 10/06/15

110

QC5- Inspect part completeness to step on W/O

0.00

1. The first step is to identify the problem. This involves understanding the current situation and what needs to be changed.

2. The second step is to set goals. These should be specific, measurable, achievable, relevant, and time-bound.

3. The third step is to develop a plan. This involves identifying the resources needed and the steps to be taken.

4. The fourth step is to implement the plan. This involves putting the plan into action and monitoring progress.

5. The fifth step is to evaluate the results. This involves comparing the actual results with the goals and making adjustments as needed.

QC

## Memo

0.00

## Quality Control

2016/06/15

2x

(+2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 59761**

Thursday, June 10, 2010 2:44:57 PM



Page 2

Item ID: D119-696-043

Accept



Setup Start



Revision ID:

Item Name: Dual Cargo Mirror Assy

Stop



Start Date: 6/10/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 6/18/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



Small Fab

Small Fab

Memo

0.00

0.00

Small Fab

Assemble as per dwg D3074

= 7 m-l 10/06/15

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

8/10/06/15

@

140



Packaging

Packaging

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

Memo

0.00

0.00

OPP 59760

10-6-15 sl 54

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Work Order ID 59761**

Thursday, June 10, 2010 2:44:57 PM



Page 3

Item ID: D119-696-043

Accept



Setup Start



Revision ID:

Item Name: Dual Cargo Mirror Assy

Stop



Start Date: 6/10/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 6/18/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/06/10

MRF

10-6-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



# Picklist Print

Thursday, June 10, 2010 2:45:01 PM

Page 2

Work Order ID: 59761



Parent Item: D119-696-043



Parent Item Name: Dual Cargo Mirror Assy

Start Date: 6/10/2010

Required Date: 6/18/2010

Comments: IPP Rev:A□08-02-19□New issue □DD verified by: LL

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2056  Bell Crank		Manufactured	No				Each	21.0000	1	2			

Location Loc Qty Loc Code

ST006

21

45542 ✓

13

58514 ✓

8

Each

15.0000

1

2

*2x m-k w/06/14*

D3072-1



Bracket

Manufactured

No

Location

Loc Qty

Loc Code

ST035

15

53119 ✓

1

57252 ✓

14

Each

13.0000

1

2

*2x m-k w/06/14*

D3072-2



Bracket

Manufactured

No

Location

Loc Qty

Loc Code

ST035

13

57253 ✓

13

f

75.8330

3.49

7.347368

*2x m-k w/06/14*

M304TR0.500W.049



304 RD Tube .500 x .049W

Purchased

No

Location

Loc Qty

Loc Code

MAT

60

114676 ✓

60

MAT017

15.833

111814

15.833

*7.347368*

*m-k w/06/14*

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Page 3

Work Order ID: 59761

Parent Item: D119-696-043

Parent Item Name: Dual Cargo Mirror Assy


Comments: IPP Rev:A 08-02-19 New issue DD verified by: LL

Start Date: 6/10/2010

Required Date: 6/18/2010

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21042L3  Nut		Purchased	No				Each	3,282.000	3	6			

Location	Loc Qty	Loc Code
ST300	3282	
113537	18	
113644 ✓	3	
114523 ✓	761	
114718	500	
114784	2000	

6x m-l 10/06/14

MS27039-1-18

Purchased

No



Screw

Each 83.0000

3

6

Location	Loc Qty	Loc Code
ST292	83	
113845 ✓	83	

6x m-l 10/06/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

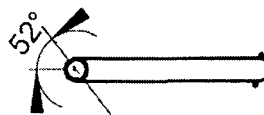
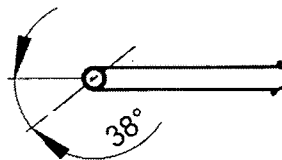
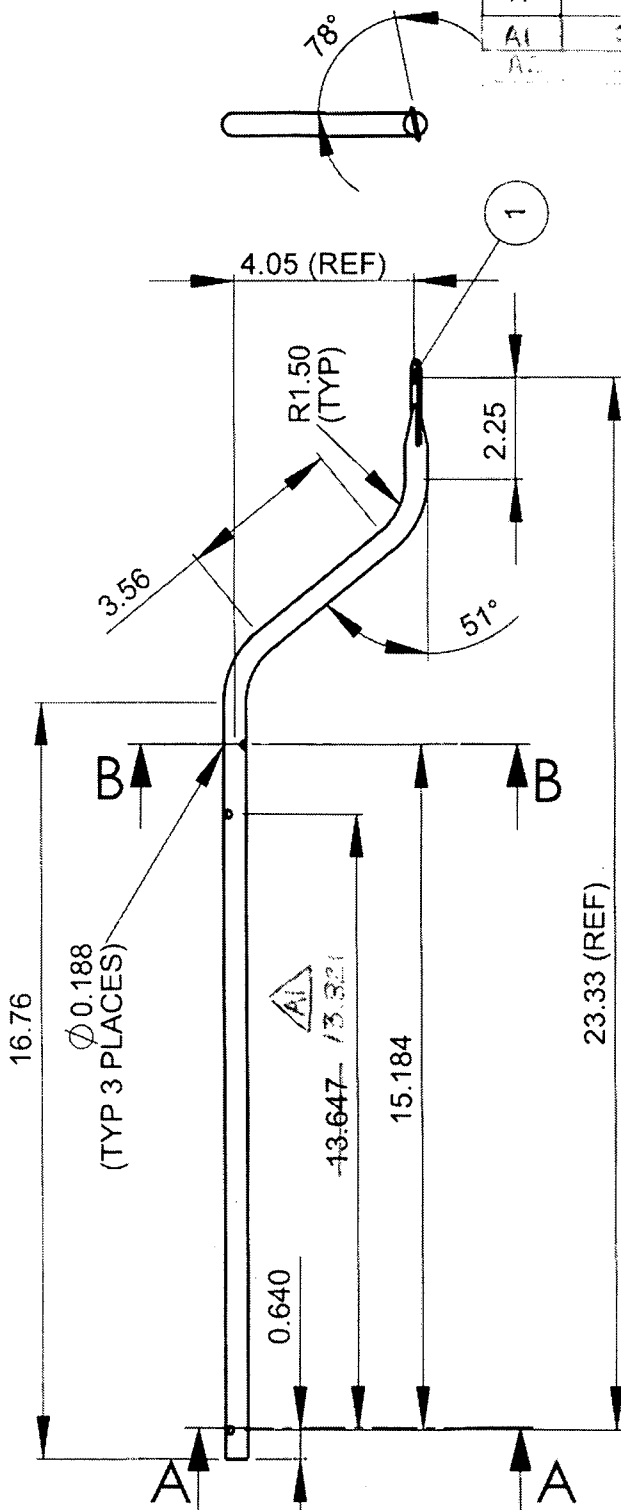
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3074	REV. A SHEET 1 OF 2
DATE 01.12.17		TITLE ARM	SCALE 1:4

A	01.12.17	NEW ISSUE
A1	02.01.15	13.821 WAS 13.647 <i>CP</i>
A2	02.03.22	ADD DIMS <i>CP</i>



*Bowl is correct*

**UNDER REVIEW**

*02.06.23 FET*  
CHANGE TO 0.049 WALL THICKNESS  
OK TO PROCEED PER ABOVE INFO

SECTION B-B  
(1 PLACE)

SECTION A-A  
(TYP 2 PLACES)

**D3074-1**

- 1) PUNCH END PER SPEC CONTROL DRAWING D2727
- 2) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE, Ø 0.50 x 0.049 WALL. ENSURE SEAMLESS TUBING IS USED
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

RELEASED  
02.01.15

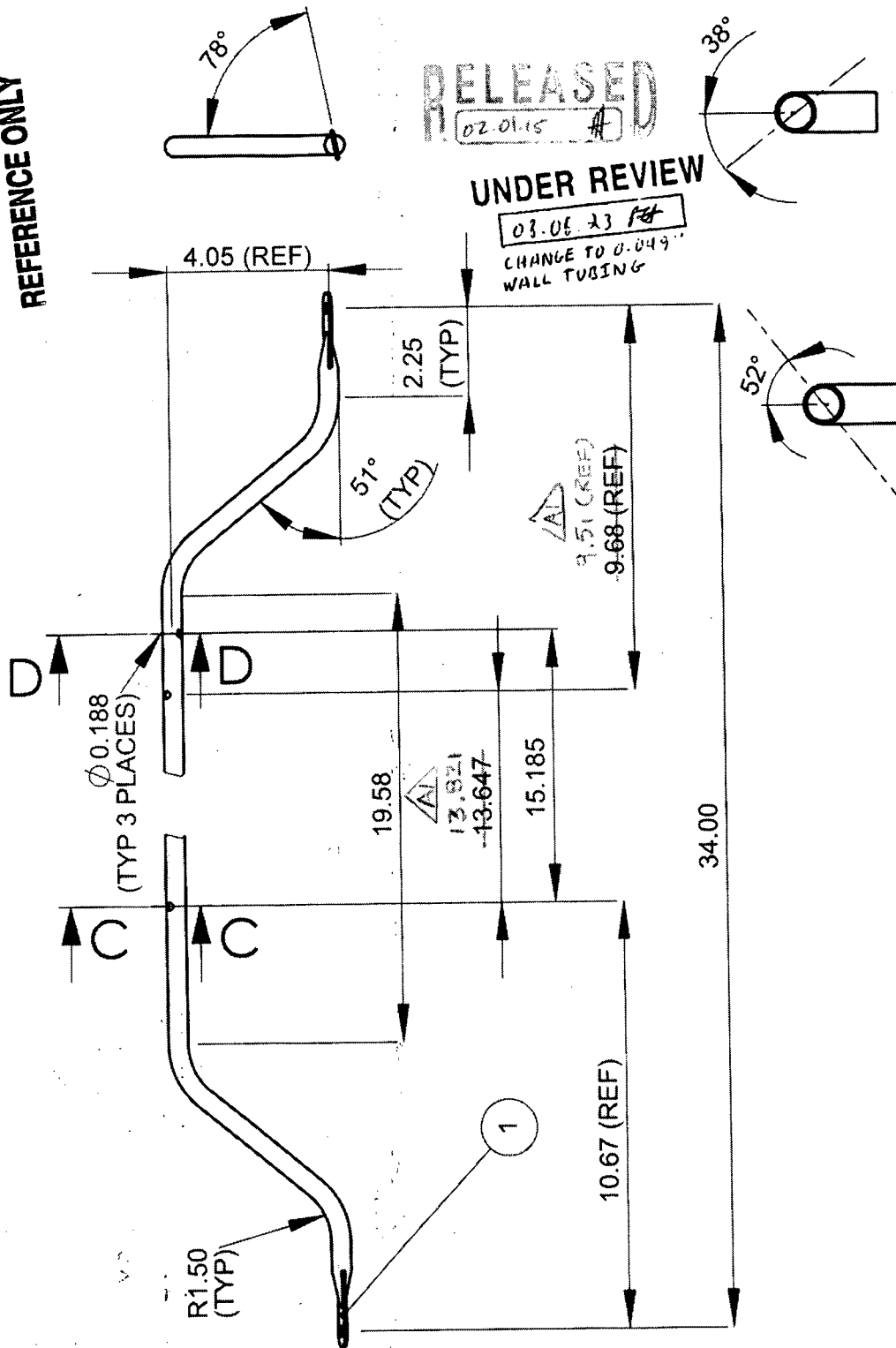
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DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D3074	REV. A SHEET 2 OF 2
DATE 01.12.17		TITLE ARM	SCALE 1:4

REFERENCE ONLY



SECTION D-D (1:2)  
(1 PLACE)

SECTION C-C (1:2)  
(TYP 2 PLACES)

D3074-3

1) PUNCH ENDS PER SPEC CONTROL DRAWING D2727  
2) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE,  $\phi 0.50 \times 0.049$  WALL  
0.049  $\phi 10.01-15$

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) ALL DIMENSIONS ARE IN INCHES  
5) PART IS NOT SYMMETRIC

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

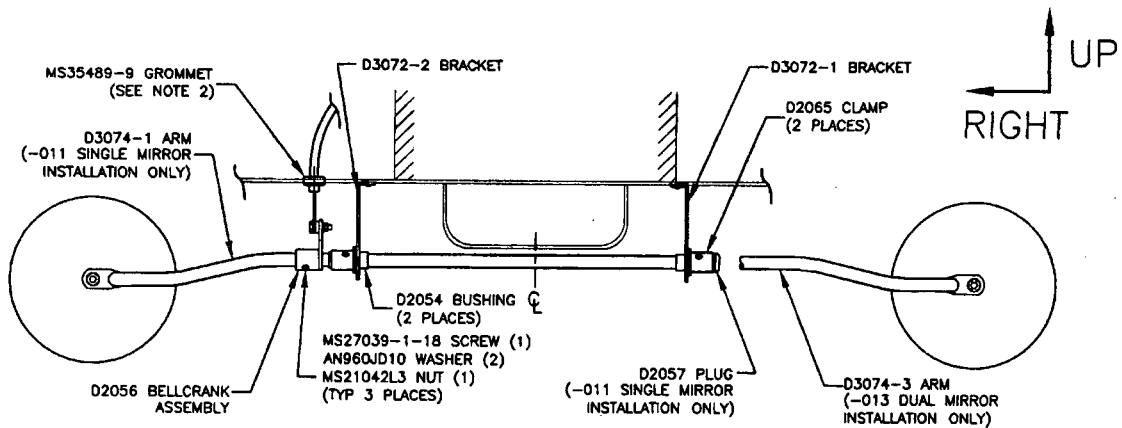
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

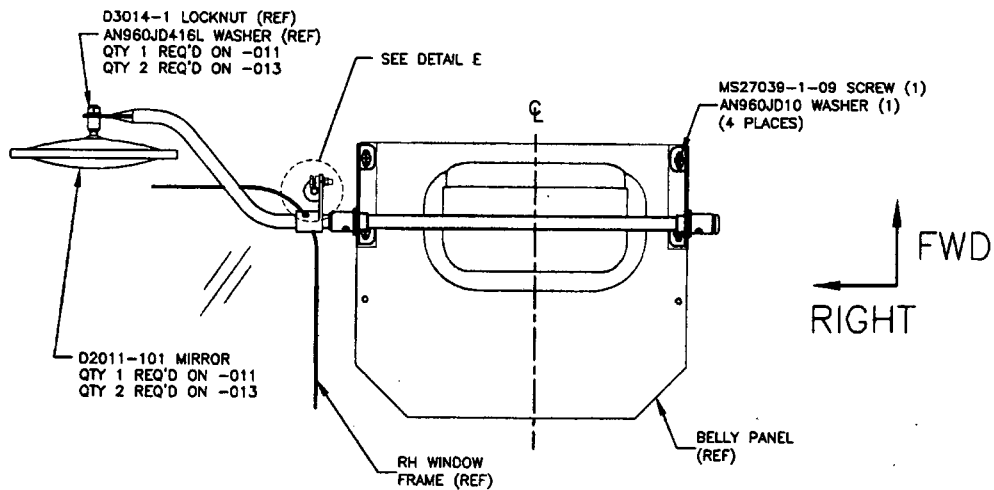
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

do 59761



**Figure 2 – View A: Looking Aft**  
(D119-696-011/-013 Mirror Shown)



**Figure 3 – View B: Looking Up**  
(D119-696-011 Mirror Shown, -013 similar)